

E2open Supply Planning and Response – Discrete Manufacturing

Quick Supply Response for the Multi-Enterprise Supply Chain

Discrete manufacturers face constant challenges managing complex multi-tier supply chains, especially for products with highly variable demand and short lifecycles. With its unique customer-driven, rules-based approach to planning, **E2open's Supply Planning and Response – Discrete Manufacturing application** quickly delivers feasible and profitable plans, allowing users to easily identify and address supply bottlenecks.

The scale and complexity of today's supply chains can make it extremely difficult to pinpoint the real source of constraints in production and delivery plans. Is a component shortage delaying high-priority orders? Is a capacity bottleneck the problem? Would a part substitution, an alternate supplier, expedited production or reallocation of supply be the right solution? Answering these questions can be difficult because of the vast number of interdependencies, especially when a combination of internal and outsourced manufacturing is involved. As a result, companies waste time, lose orders, disappoint customers and incur high costs.

One of E2open's Business Planning intelligent applications, E2open Supply Planning and Response — Discrete Manufacturing uses the latest data from all tiers of the end-to-end supply chain to generate plans optimized to meet company goals. The application creates multi-tier plans that respect constraints and take supply alternatives into account. Users can define extensive rules for how to align supply with demand priorities. In cases when resolving a bottleneck is not practical, planning logic ensures that the most important demands are met first and plans are aligned with business objectives.

Advanced Algorithms and Logic for the Best Possible Plans

An array of powerful capabilities enables manufacturers to create plans that maximize revenue, profitability and customer satisfaction.

KEY FEATURES

-  Visibility into materials and capacity across the entire multi-tier supply network
-  Powerful Priority Manager that prioritizes demands according to business rules
-  Easy identification of gating capacity and part constraints
-  Order pegging to identify constraints at any level in the bill of materials
-  Clear-to-build production order releases based on planner definitions of qualified supply, such as on-hand only, inclusive of in-transit and inclusive of quality holds
-  Highly automated integration of planning with execution

KEY BENEFITS

-  20-30% reduction in inventory and 10-20% reduction in expediting costs from more efficient planning of materials and capacity
-  1-5% higher revenues by maximizing fulfillment of demand
-  30-50% productivity improvement from automation and exception management
-  Automated enforcement of business policies such as the prioritization of customers, segments, channels and previous commitments
-  Increase in on-time deliveries and improved customer satisfaction

Constraint-Based Planning for Feasible Plans

Every Time

Some supply planning solutions offer unconstrained planning only. As a result, planners must iterate through multiple simulations to resolve material and capacity constraints, trying to find a plan that is both feasible and satisfactory with respect to the company's business objectives. Often planners resolve one problem only to expose another. In contrast, E2open's planning engine produces a feasible multi-tier plan based on user-defined demand priorities. This improves planner productivity, speeds planning cycle times and produces better plans.

Plans Optimized to Meet Demand Priorities

To prioritize demands during constraint-based planning, a Priority Manager workbench allows users to define an extensive set of rules to align supply plans with business objectives. Planners can rank demands by strategic customers, channels, product lines, revenue, committed status and other parameters. The planning engine generates the best possible plan to meet the rules. All projected supply requirements and consumption in each tier of the extended supply chain are automatically pegged to demands to guarantee that plans are feasible and priority demands are fulfilled.

What-if Scenarios to Quickly Weigh Alternatives

Even with optimization, planners may choose to run several what-if scenarios to evaluate the impact of different priorities and constraints. The application's in-memory architecture lets planners quickly assess various strategies before selecting a new plan for execution. A planner can also simulate upside demand or material and capacity shortages before changing the operational plan. This improves on-time, in-full metrics and minimizes expediting costs and effort across the supply chain.

Multi-Enterprise Planning to Align With Suppliers and Contract Manufacturers

Multi-enterprise planning is becoming increasingly important for managing the growth in outsourcing and the

high complexity of multi-tier supply chains. To determine if customer demands can be met, planners have the option of using E2open's trading partner network to collaborate with internal and external partners on material and capacity requirements. Such collaboration also gives suppliers, contract manufacturers and other partners timely customer demand visibility, which is necessary to minimize the bullwhip effect.

Specialized Capabilities for Better Plans

E2open's application offers numerous innovative capabilities not found in other solutions. One of these is channel allocation protection, which assigns demand by channel but frees up supply at the end of a planning period to take advantage of last-minute demand, regardless of channel. Another powerful feature is non-blocking allocations, which prevent high-priority demands with part shortages from locking up inventory and delaying lower-priority demands that are otherwise clear to build. These and other sophisticated features help make planning more efficient and effective.

End-to-End Supply Chain Management Platform

Once an organization implements any E2open platform application, it is easy to add more capabilities in the future for better visibility, coordination and control over the end-to-end supply chain. The E2open platform creates a digital representation of the internal — and optionally external — network, connects internal enterprise resource planning (ERP) and financial systems using SAP® and Oracle® certified adapters for timely data feeds, and normalizes and cleanses the data to make it decision-grade. Using machine learning-enabled algorithms and supply chain management applications, the platform processes the data and provides bi-directional, closed-loop communications back to ERP systems for execution. This facilitates the evolution of supply chain processes towards true convergence of end-to-end planning and execution.

Manufacturers can confidently create feasible plans that take into account all materials and capacity at each tier of the extended supply chain. Plans are automatically optimized to meet company demand priorities.

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